



Autumn Harvest

Summary

Sample harvest time at a turn-of-the-century farm. Gather sorghum, press cider, help with chores or play farm games. Enjoy the sights and smells of an old-time farmhouse and barn.

Objectives

Students will be able to:

1. Describe differences between modern life and life in the early 1900s such as electricity, gas-powered machines, hot/cold running water.
2. Describe harvest activities on a turn-of-the-century farm such as sorghum, apples, corn, garden crops.
3. Learn about the importance of clean air, water, and soil to both earlier times and modern life.
4. Participate in different jobs that the children did on a turn-of-the-century farm, eg. stoneboat, harvesting, feeding the animals.
5. Explain how the National Park Service protects historic sites such as the Chellberg Farm.



What to Expect during Your Field Trip

1. Group arrives at Chellberg Farm and meets with their ranger or docent instructor.
2. Two groups can begin at the same time with additional groups leaving 20-30 minutes after the previous ones.
3. One-hour tour includes three to five learning stations focusing on harvest activities on the farm such as sorghum gathering, vegetable garden walk, apple cider pressing, or stoneboat pulling. Specific activities depend on the age of the group and the weather conditions.
4. Tour ends at the farmhouse with volunteers providing a walk through the house and the barn for 45 minutes.

Setting: Chellberg Farm is located in Porter, Indiana. The house and grounds are transformed into learning stations for students to explore and engage in hands-on activities. Restrooms and picnic shelters are available at this site. Additional hiking trails are available for use in this area if a group wishes to hike on their own before or after the program. A trail map will be provided upon request.

Grade: All grades are welcome, but activities are most suited for K-5.

Ratio of Students to Ranger: 30 (or fewer) to 1. Please provide one adult chaperone for every ten students for safety purposes.

Safety Issues: There may be yellow jackets at the apple cider and sorghum press. Most of the program is outdoors, walking along a trail and around the farm site. Farm animals and machinery are present. The program encourages hands on participation from the students.

For More Information: See the park's education website at www.nps.gov/indu/forteachers/. Contact the park's scheduling office at (219) 926-7561, ext. 243.

Background Information

The historic Chellberg Farm is a site within the Indiana Dunes National Lakeshore. The Chellberg farm is an example of the progression of human activities that took place as the Northwest Indiana area was inhabited and settled. Anders and Johanna Chellberg immigrated to Indiana from Sweden in



1863 and established their home at this site. Three generations of Chellbergs made their living on this farm. Today the farm represents the time period from 1890 through 1910.

The Chellbergs were a part of Porter County's large agricultural and Swedish-American community which impacted northwest Indiana economically, socially, and culturally during this period of significance. Today's daily farm operations (such as the special events, demonstrations, festivals, and public and school programs) enable the visitor to experience 1900s era agricultural and Swedish-American life first-hand. The Chellberg site's resources, including its historic buildings, provide a reference for Indiana's place in United States' settlement and agricultural history.

The Animals of Chellberg Farm

Cattle

The Chellberg Farm usually maintains one cow (on loan). Cattle are raised on farms for milk and meat. Some breeds are better suited for milk production (Holsteins, Jerseys, and Guernseys) and others for meat production (Herefords and Charlais). While most people know that cows give milk, not everyone is aware that cows produce milk to feed their own calves. People are able to use milk production for their own consumption. A cow can give from three to eight gallons of milk each day. Cattle used for meat production are butchered at about 1,000 pounds—a weight usually achieved by 18-20 months of age. A cow's normal life span is approximately 15 years.

Swine

The swine are the most intelligent of farm animals. They are raised primarily for meat but also provide bristles for brushes, hides, and lard. Virtually every part is usable. Since swine perspire only through their noses, they will coat themselves with mud to insulate their bodies from the summer's heat. They do not have a heavy coat of winter hair like most animals because their fat keeps them warm.

Swine have both upper and lower teeth. They scoop their food, which is primarily corn. The adult female is a *gilt* until she farrows or has a litter of piglets; she is then called a *sow*. Gestation is three months, three weeks, and three days. A litter contains eight to fifteen piglets, and the mother has from eight to sixteen teats. Piglets weigh about two pounds at birth and gain about 1.25 pounds a day. They are weaned when they are about ten weeks old. At seven months, they are ready for market. A *boar* is an adult fertile male; a *barrow* is a castrated male. Their life span is seven years.

Horses

The Chellberg Farm usually has two to three draft horses. These draft horses are used to pull the stone boats, hay wagons, binder, and other farm equipment. Draft horses weigh approximately 1,600 pounds.

A female horse is a *mare*, a fertile male is a *stallion*, and a castrated male is a *gelding*. A mare usually has one *foal* at a time, and her gestation period is 336 days. A male foal is a *colt* and a female foal is a *filly*. Horses live approximately 30 years.

The most common seen draft horse breed in the 1880s was the *Percheron*. This breed ranges in color from solid black to white, with many dapple-gray. As the Percheron ages, the gray becomes more predominate and changes to almost white.

Chickens

The Chellberg Farm has Rhode Island Red Chickens. Chickens are raised for meat and eggs. A hen can lay over 300 eggs a year. Eggs are laid whether or not they are fertile. A fertile egg will hatch in 21 days. Chickens live approximately three years.

Minnie Chellberg raised the chickens; and according to oral history, she took tender care of them. She generally kept two dozen Rhode Island Reds and Plymouth Rocks. She fed them twice a day in wooden troughs and gave them warm water in the winter to encourage better laying. She kept baby chicks in the house.

Geese

Geese are large waterfowl. They have heavier bodies, longer necks, and their bills are thick at the base. The Chellbergs raised geese for both meat and feathers. They plucked breast feathers in the spring to fill their beds and pillows. Throughout the year, they picked up loose feathers that they found around the farm.

About the Farmhouse

The National Park Service renovated the farmhouse in the years 1987 to 1989, restoring it to its general 1900s era appearance.

The original wood house was destroyed by fire on December 16, 1884.

The new house, which was constructed upon the same site and used the same cellar as the original farmhouse, was constructed of brick. Andrew J. Lundquist, a local farmer and friend, built the brick farmhouse in 1885. The use of brick for the new house was an attempt to prevent another fire.



The house was wired for electricity in 1919. A porch was added to the side of the farmhouse near the windmill to store the generator and batteries. The entire house and barn were wired for lights. A few outlets were installed for appliances. However, within a few years, the generator was out of service. Electricity was not restored in the house until the 1930s. The family did their laundry in the kitchen.

The parlor, bedroom, and kitchen have all been furnished to portray a typical Northwest Indiana farmhouse of the 1895 to 1905 period. The parlor and bedroom is furnished partially with antiques. The kitchen is furnished primarily with modern materials of 1900s era style so that the room can be

used for cooking and baking.

The Farm's Gardens

Although food was available in stores, most farmers relied on their gardens as a source of food.

Therefore, the planting, maintaining, and harvesting of garden produce was an important part of 1900s era farm life. Today, the large garden is planted with heirloom varieties of vegetables such as pole beans, pumpkins, cabbage, beets, sweet potatoes, watermelon, onions, peppers, carrots, squash, tomatoes, lima beans, lettuce, peas, radishes, corn, cucumbers, and turnips—vegetables that were commonly available to the 1890s era Northwest Indiana farmer.

Barn

The barn was built in the 1870s using an American style—mortise and tenon joints secured by wooden pegs. The roof was covered with wooden cedar shake shingles. The cows were kept at the west-end of the barn; the horses were kept in the east-end where the ceiling was higher; the hay was kept above the horses and was tossed down as needed. In the early 1900s, the barn was painted gray with white trim. To replicate this in 2000, the barn was painted gray with white trim, the siding and wall studs were repaired, and the roof was replaced.

Cider Making

Today, apple cider is often the product of apples that would not sell as eating apples. On the old-time farm, such apples were given to the cattle. The cattle relished these “bad apples”—bruises, worms, and all. Only the choicest apples went into the cider. Such varieties as *Golden Russet*, *Sweet*, and *Snow* were grown entirely for aroma, succulence, and general goodness. They made delicious cider! How rich were the seasons of yesterday!

Today's cider is a mixture of Jonathan, Mackintosh, Red and Golden Delicious, Cortland, and a few Crab Apples for tang. A bushel and a half of apples yields one gallon of cider.

Prerequisite Classroom Activities

Before your visit to Indiana Dunes National Lakeshore, please take a moment to read through the information listed below. We suggest that you do one or more of the described activities with your class in order to prepare them for the lessons and experiences they will have during their field trip. A list of vocabulary words has been provided to help prepare students for their visit. If there is a special topic or area that you want the ranger to cover during the presentation, please contact the park's scheduling office. Every effort will be made to accommodate your request.

Activity 1: Lead student discussion or have them list activities their family does in the fall to prepare for winter. Examples: remove and store air conditioners, check the furnace, winterize cars, buy winter clothes.

Activity 2: Visit a grocery store and list the foods that are sold only in the fall.

Activity 3: Research one farm product from planting to harvesting. What steps are taken and when?

Activity 4: Prepare a bulletin board or collage depicting life on a modern farm. Ask students to predict the items that may not be on a turn-of-the-century farm.

Activity 5: How many words can the students make using the letters in "Chellberg Farm"?

Activity 6: For Older Students: Research why people wanted to leave Sweden between the 1860s-1880s. Would the students today be willing to move to a new country? Why or why not?

Post-field Trip Activities

Activity 1: Complete the enclosed harvest quiz and math problems sheet.

Activity 2: Perform a skit showing how people performed certain chores around the farm.

Activity 3: Write or tell a story. Suppose you lived on Chellberg Farm and you wanted to play with your friends. Tell how your choice of games may be different than that of today.

Answers for Harvest Quiz

Granary = wheat or oats

Corncrib = corn

Cellar = potatoes

Drying = apples

Silo = wheat or oats

Barn loft = hay

Canning = tomatoes

Answers to Story Problems

Problem 1: $15 - 5 = 10$

Problem 2: $5 \text{ hens} \times 2 \text{ eggs} = 10 \text{ eggs} \times 7 \text{ days} = 70 \text{ eggs}$

Problem 3: $2 \times 3 = 6 \text{ acres}$

Problem 4: $5 - 2 = 3 \text{ boys}$

Vocabulary

HARVEST – the gathering of a crop and/or a ripe crop (as of grain or fruit)

AUTUMN – the season between summer and winter in the northern hemisphere usually the months of September and October; for our purposes, the season when crops are gathered

SOW – to plant seed for growth especially by scattering

CULTIVATE –to prepare land for the raising of crops and/or to loosen or break up the soil around (growing plants)

IMMIGRANT – a person who comes to a country to live there

AGITATOR – a device for stirring or shaking

PLOW – steadily and with great effort open or break up soil

SORGHUM - any of a genus of Old World tropical grasses that look like Indian corn; especially one cultivated for grain, forage, or syrup

STONE BOAT – wooden sled pulled by livestock and used to haul stones or heavy objects

Follow-up Activity

Ask each student to write a short essay, letter, or story about what they learned on their field trip to Indiana Dunes National Lakeshore. Rangers love receiving mail from their students. Send the ranger the packet of essays from your class (or a copy of them), and your ranger will send your class a certificate from the dunes. Send your essays to: **Indiana Dunes National Lakeshore, 1100 N. Mineral Springs Road, Porter, IN 46304, Attn: Your ranger's name or just Education Department..**

If you are using this essay as a class assignment for a grade, we would like to suggest that each essay contain the following elements. **Use the rubric on the next page to score them.**

- The name of the park and the location of their field trip—for example: Douglas Center, Indiana Dunes National Lakeshore
- Three facts they learned on the field trip about the old-time life on farms
- A brief explanation of why Indiana Dunes is unique and therefore a national park
- At least two things the student can do to help take care of his or her national park
- Fill in the blank of this statement and provide an explanation: I would like to learn more about _____ at Indiana Dunes.

For advanced groups, add the following element:

- Tell the park rangers if you would like to bring your families and friends to the dunes; and if so, what would you do here and where would you go.

Assessment

Rubric for Class reflection writing assignment:

Elements	4 points	3 points	2 points	1 point
Writing and organization	The writing sample is very well written and organized by the elements provided. It has a strong introduction, middle and conclusion.	The writing sample is well written and organized by the elements provided. It includes an introduction, middle and conclusion.	The writing sample is choppy and is not well organized. It lacks an introduction or conclusion.	The writing sample is very short and unorganized.
Grammar & Spelling	Mistakes in spelling and grammar are minor or non-existent.	Mistakes in spelling and grammar are minimal—about 4-5.	Mistakes in spelling and grammar are numerous—5-10.	Mistakes in spelling and grammar are more than 10.
Facts and content	The writing sample demonstrates the student's learning on the dunes program and includes three or more facts provided by the park staff.	The writing sample demonstrates the student's learning and includes only two facts provided by the park staff.	The writing sample does not demonstrate much learning and only includes one fact provided by the park staff.	The writing sample does not demonstrate any learning and does not include any facts provided by the park staff.
National Park Service theme	The writing sample clearly demonstrates the student's understanding of the role of the NPS in preserving the dunes by explaining why Indiana Dunes is such a unique treasure.	The writing sample mentions the NPS and its role in preserving the Indiana Dunes.	The writing sample mentions the NPS and Indiana Dunes.	The writing sample does not mention anything about the NPS or its role at Indiana Dunes.
Stewardship	The writing sample lists three things the student can do to assist in taking care of the Indiana Dunes.	The writing sample lists two things the student can do to assist in taking care of the Indiana Dunes.	The writing sample lists one thing the student can do to assist in taking care of the Indiana Dunes.	The writing sample does not list anything about what the student can do to take care of the Indiana Dunes.

Illinois Content Standards

The *Autumn Harvest* program can assist teachers in meeting the following Illinois standards in social science.

State Goal 15: Understand economic systems, with an emphasis on the United States.

Understand that scarcity necessitates choices by producers.

15.C.1a Describe how human, natural and capital resources are used to produce goods and services.

15.C.1b Identify limitations in resources that force producers to make choices about what to produce.

State Goal 16: Understand events, trends, individuals and movements shaping the history of Illinois, the United States and other nations.

Apply the skills of historical analysis and interpretation.

16.A.1c Describe how people in different times and places viewed the world in different ways.

16.B.1(W) Explain the contributions of individuals and groups who are featured in biographies, legends, folklore and traditions.

Understand the development of economic systems.

16.C.1b(US) Explain how the economy of the students' local community has changed over time.

16.C.1a(W) Identify how people and groups in the past made economic choices (e.g. crops to plant, products to make, products to trade) to survive and improve their lives.

Understand Illinois, United States and world environmental history.

16.E.1(US) Describe how the local environment has changed over time.

16.E.2a(W) Describe how people in hunting and gathering and early pastoral societies adapted to their respective environments.

16.E.2a (US) Identify environmental factors that drew settlers to the state and region.

State Goal 17: Understand world geography and the effects of geography on society, with an emphasis on the United States.

Analyze and explain characteristics and interactions on the Earth's physical systems.

17.B.2a Describe how physical and human processes shape spatial patterns including erosion, agriculture and settlement.

Understand relationships between geographic factors and society.

17.C.2a Describe how natural events in the physical environment affect human activities

State Goal 18: Understand social systems, with an emphasis on the United States.

Understand how social systems form and develop over time.

18.C.1 Describe how individuals interacted within groups to make choices regarding food, clothing and shelter.

18.C.2 Describe how changes in production (e.g. hunting and gathering, agricultural, industrial) and population caused changes in social systems.

Student Activity Sheet

Harvest Quiz

Look at the list of food and crops on the right and match them with the list of storage or harvesting options on the left.

Granary

Corn

Corncrib

Potatoes

Cellar

Hay

Drying

Tomatoes

Silo

Wheat

Barn loft

Oats

Canning

Apples

Math Story Problems

Problem 1:

The Chellberg family has 15 chickens. If they eat one a week for 5 weeks in a row, how many will they have on the sixth week? _____

Problem 2:

The Chellberg family has 10 chickens. Of the 10 chickens, 5 are hens (females that lay eggs). If each of the 5 hens lay 2 eggs a day for seven days, how many eggs will the Chellberg family have? _____

Problem 3:

Mr. Chellberg can plow 1 acre of field in one hour with the horse named Linda. He can plow 2 acres of the field in one hour with the horse named Molly. How many acres can Mr. Chellberg plow with the horse named Molly if he has 3 hours to plow? _____

Problem 4:

Mr. and Mrs. Chellberg have 5 children. Two of the children are girls. How many of the children are boys? _____